

Patent
Serial No. 10/060,154
Attorney Docket No. 10011031-1

REMARKS

Remaining Claims

Claims 1, 2, and 4-24 remain pending in this application. Claims 1, 5, 19-21 and 23 have been amended herein. The Applicant respectfully requests reconsideration and that the amendment being submitted herewith be entered.

Claims Allowed

Claims 11-18 have been allowed by the Examiner. The Applicant wishes to thank the Examiner for recognizing the allowability of these claims.

Claims Objected To

Claim 2 stands objected to as being dependent upon a rejected base claim. The Examiner has indicated that this claim would be allowable if rewritten in independent form to include all of the limitations of claim 1. The Applicant wishes to thank the Examiner for recognizing the allowable subject matter of this claim. Nevertheless, the Applicant believes that claim 1 as amended herein is allowable over the prior art of record and has elected not to rewrite claim 1 in independent form at this time.

Rejection of Claim 5 under 35 USC §112, second paragraph

Claim 5 stands rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Specifically, the Examiner points out that the element "said first one of said first flip flops" in claim 5 lacks antecedent basis. The Applicant apologizes for the oversight. This element in claim 5 has been changed to "said first one of said flip flops". In view of this amendment to claim 5, the Applicant respectfully submits that this rejection is overcome and requests that it be withdrawn.

Rejection of Claims 1, 4, 6-10 and 19-24 under 35 USC §102(b) – Gujral et al.

Claims 1, 4, 6-10 and 19-24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Gujral et al.* (U.S. Patent No. 5,896,052 to Gujral, et al.). To clarify the claimed subject matter, the Applicant has amended independent claim 1, from which claims 4 and 6-10 depend, independent claims 19-20, independent claim 21, from which claim 22 depends, and independent

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claim 23, from which claim 24 depends. The Applicant respectfully traverses this rejection on the following grounds.

In the manner set forth in the claims, the Applicant's invention can efficiently synchronize data from one clock domain to another, even though the frequencies of the two clocks may have non-integer ratios and the clocks may be skewed, by cleverly taking advantage of the fact that the two clocks are in synchronization. In response to the previous Office Action, the Applicant explained that the first and second clocks are synchronized at regular intervals. To clarify what is meant by this and what effect this has on the results achieved, the Applicant has amended independent claims 1, 19-21 and 23 to explain that at these regular intervals an edge of the first clock coincides with an edge of the second clock and, moreover, that the fact that this occurs is used or exploited by the circuitry to perform the synchronization. In other words, as explained in the Applicant's specification, the synchronization control logic knows when the first clock has an edge (which can be a rising edge in some embodiments or a falling edge in others) that is coincident with an edge (similarly, a rising edge or falling edge) of the second clock. In the embodiment of the invention illustrated in Applicants' specification, the synchronization control logic responds to this occurrence (i.e., the coincidence of two edges) and the absence of it by controlling the "Enable" and "Select" signals accordingly to effect the recited synchronization, including providing the advantageously long setup time margin. These effects, such as providing the recited setup time margin, are achieved in the Applicant's invention because the control logic knows when the first and second clocks have coincident edges, which occurs at regular, known, intervals even though the clocks may have non-integer frequency ratios. Not only does *Gujral et al.* neither teach nor suggest that the circuitry achieves such objects, but the circuitry cannot achieve any such objects through the means recited in the Applicant's claims because the two clocks in the circuitry of *Gujral et al.* are asynchronous.


For the foregoing reasons, the Applicant believes independent claims 1, 19-21 and 23 are not anticipated by *Gujral et al.* The Applicant further believes that claims 4, 6-10, 22 and 24 are not anticipated for at least the same reasons because they depend from these independent claims. Therefore, the Applicant respectfully requests that the Examiner reconsider and withdraw the rejections of claims 1, 4, 6-10 and 19-24 under 35 U.S.C. § 102(b).

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CONCLUSION

In view of the foregoing, it is respectfully submitted that all pending claims are now in condition for allowance, and the Applicant respectfully solicits allowance of application. Should there be any further questions or concerns, the Examiner is urged to telephone the undersigned to expedite prosecution.

Respectfully submitted,
GARDNER GROFF, P.C.



Lawrence D. Maxwell
Reg. No. 35,276

GARDNER GROFF, P.C.
100 Parkwood Point
2018 Powers Ferry Road, Suite 800
Atlanta, Georgia 30339
Phone: 770.984.2300
Fax: 770.984.0098